

Office of River Protection

Tri-Party Agreement
Managers Milestone Review Meeting
July 28, 2009

Office of River Protection

U.S. Department of Energy
U.S. Environmental Protection Agency
Washington State Department of Ecology

June 2009

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Agenda

Office of River Protection
 Tri-Party Agreement
 Managers Milestone Review Meeting
 2440 Stevens Center, Conference Room 1600
 July 28, 2009
 9:00 a.m. – 11:30 a.m.

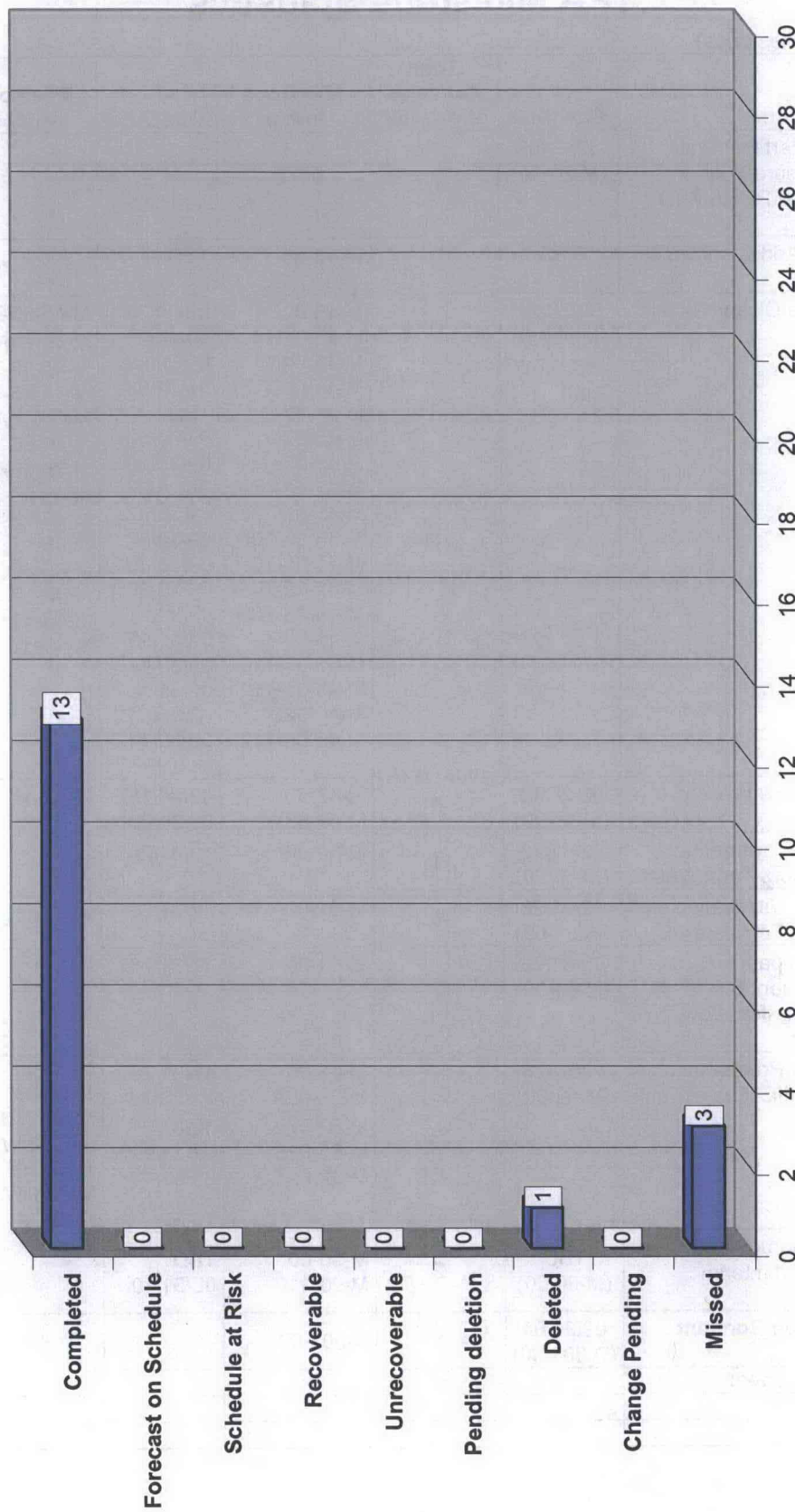
Page	Topic	Leads	Time
21	FY 2009 ORP TPA Cost & Schedule Performance (CHG)	Janet Diediker / Ed Fredenburg / Jeff Lyon	9:00
25	M-45, -50, -60 Single-Shell Tank Corrective Action	Bob Lober / Joe Caggiano	9:15
27	M-45-00, Complete Closure of All Single-Shell Tank Farms	Chris Kemp / Jeff Lyon	9:25
37	Interim Stabilization Consent Decree	John Long / Nancy Uziemblo	9:35
38	In Tank Characterization and Summary	John Long / Michael Barnes	9:45
39	M-47-00, Tank Waste Treatment, Storage and Disposal Facilities	Ben Harp / Les Fort	9:50
41	M-90-00, Complete Acquisition of Facilities for Interim Storage of IHLW and Storage/Disposal of ILAW and M-20, Part B Permits	Ben Harp / Bud Derrick	10:00
42	M-62-00, Complete Pretreatment Processing and Vitrification of Tank Wastes	Ben Harp / Ed Fredenburg	10:10
	BREAK		
3	TPA Milestone Statistics	Woody Russell / Ed Fredenburg / Jeff Lyon	10:20
44	BNI Cost & Schedule Performance for Immobilization Plant (WTP) Project	Wahed Abdul / Cecil Swarens / Garth Reed / Jeff Trent / Ed Fredenburg	10:30

TPA Milestone Statistics

(Including target milestones)

Milestone	Due Date	Total Active as of 02/21/08	Milestone Number	Due Date	Milestone Number	Due Date
M-20-00 , Submit Part B Permit Application on Closure/Post Closure Plans for all RCRA TSD Units	12/31/08 (M-20-00)	0				
M-42-00 , Provide Additional DST Capacity	TBD	1	M-42-00	TBD		
M-45-00 , Complete Closure of all SST Farms	09/30/24 (M-45-00)	35	M-45-00 M-45-00B M-45-00C M-45-00D M-45-02 M-45-02O M-45-05 M-45-05A M-45-05-T05 M-45-05-T06 M-45-05-T07 M-45-05-T08 M-45-05-T09 M-45-02P M-45-05-T10 M-45-05-T11 M-45-02Q M-45-05-T12	09/30/24 09/30/06 09/30/06 01/31/08 TBD 03/01/10 09/30/18 03/31/07 09/30/07 09/30/08 09/30/09 09/30/10 09/30/11 03/01/12 09/30/12 09/30/13 03/01/14 09/30/14	M-45-05-T13 M-45-02R M-45-05-T14 M-45-05-T15 M45-02S M-45-06 M-45-06-T03 M-45-06-T04 M-45-13 M-45-15 M-45-56 M-45-59 M-45-61 M-45-62	09/30/15 03/01/16 09/30/16 09/30/17 03/01/18 09/30/24 03/31/12 03/31/14 06/30/11 06/30/11 TBD TBD 12/31/10 07/31/12
M-47-00 , Complete All Work for Phase 1 Operations	02/28/18 (M-47-00)	3	M-47-00 M-47-03A	02/28/18 03/31/09	M-47-06	06/30/10
M-50-00 , Complete Pretreatment Processing of Hanford Tank Waste	12/31/28 (M-50-00)	1	M-50-00	12/31/28		
M-51-00 , Complete Vitrification of Hanford High Level Tank Waste	12/31/28 (M-51-00)	1	M-51-00	12/31/28		
M-61-00* (alternate path), Complete Pretreatment & Immobilization of Hanford Low Activity Tank Waste	12/31/28 (M-61-00)	1	M-61-00	12/31/28		
M-62-00 , Complete Pretreatment Processing and Vitrification of Tank Wastes	12/31/28 (M-62-00)	13	M-62-00 M-62-00A M-62-07B M-62-01S M-62-01T	12/31/28 02/28/18 12/31/07 07/31/09 01/31/10	M-62-08 M-62-09 M-62-01U M-62-01V M-62-10 M-62-01W M-62-11	06/30/06 02/28/09 07/31/10 01/31/11 01/31/11 07/31/11 06/30/07
M-90-00 , Interim Storage and Disposal of LAW and Interim Storage of HLW	TBD (M-90-00)	2	M-90-00 M-90-11	TBD 08/31/10		
Interim Stabilization Consent Decree	09/30/04 (D-001-00)	1	D-001-00			
Total Active Milestones:		59				

FY 2006 MILESTONE PERFORMANCE



Fiscal Year 2006 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R26	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	10/31/05	10/31/05								
M-048-07A-A	Complete construction of the AZ-301 condensate return system and remove the AZ-151 catch tank system from service by October 31, 2005. This scheduled deliverable is a subset of M-48-07A, and thus labeled as M-48-07A-A.	10/31/05	10/24/05								
M-046-21	Complete Implementation Of Double Shell Tank Space Optimization Study Recommendations (Tank Space Options Report Document No. RPP-7702, April 12, 2001).	12/31/05	12/15/05								
M-062-01L	Submit Semi-Annual Project Compliance Report.	01/31/06	01/31/06								
M-045-02M	Submit biennial update to SST retrieval sequence document (agreement Appendix I. Section 2.1.2), double-shell tank space evaluation document and Ecology concurrence of additional tank acquisition.	3/1/06	3/13/06								

Fiscal Year 2006 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-048-07A-B	Completion of construction for the 241-AP-106A central pump pit upgrade (remove existing equipment, evaluate pit integrity, and replace pit coating, if necessary). This scheduled deliverable is a subset of M-48-07A, and thus labeled as M-48-07A-B.	3/31/06	3/30/06								
M-048-14	Submit Written Integrity Report For The Double-Shell Tank System.	3/31/06	3/31/06								
M-047-05A	Complete startup and turnover activities for waste retrieval and mobilization systems for selected initial low-activity waste feed tank (other than AZ-101 or AZ-102).	4/30/06	12/29/04								
M-45-55-T04	Submit to Ecology for review and comment a draft Field Investigation Report combining the results of field investigations and analysis for WMAs A-AX, C and U. As part of the Phase 2 Vadose Zone project renegotiations being developed, this target milestone scope has been included in M-45-55 Phase 1 rollup documentation due in 1/08.	4/30/06								X	

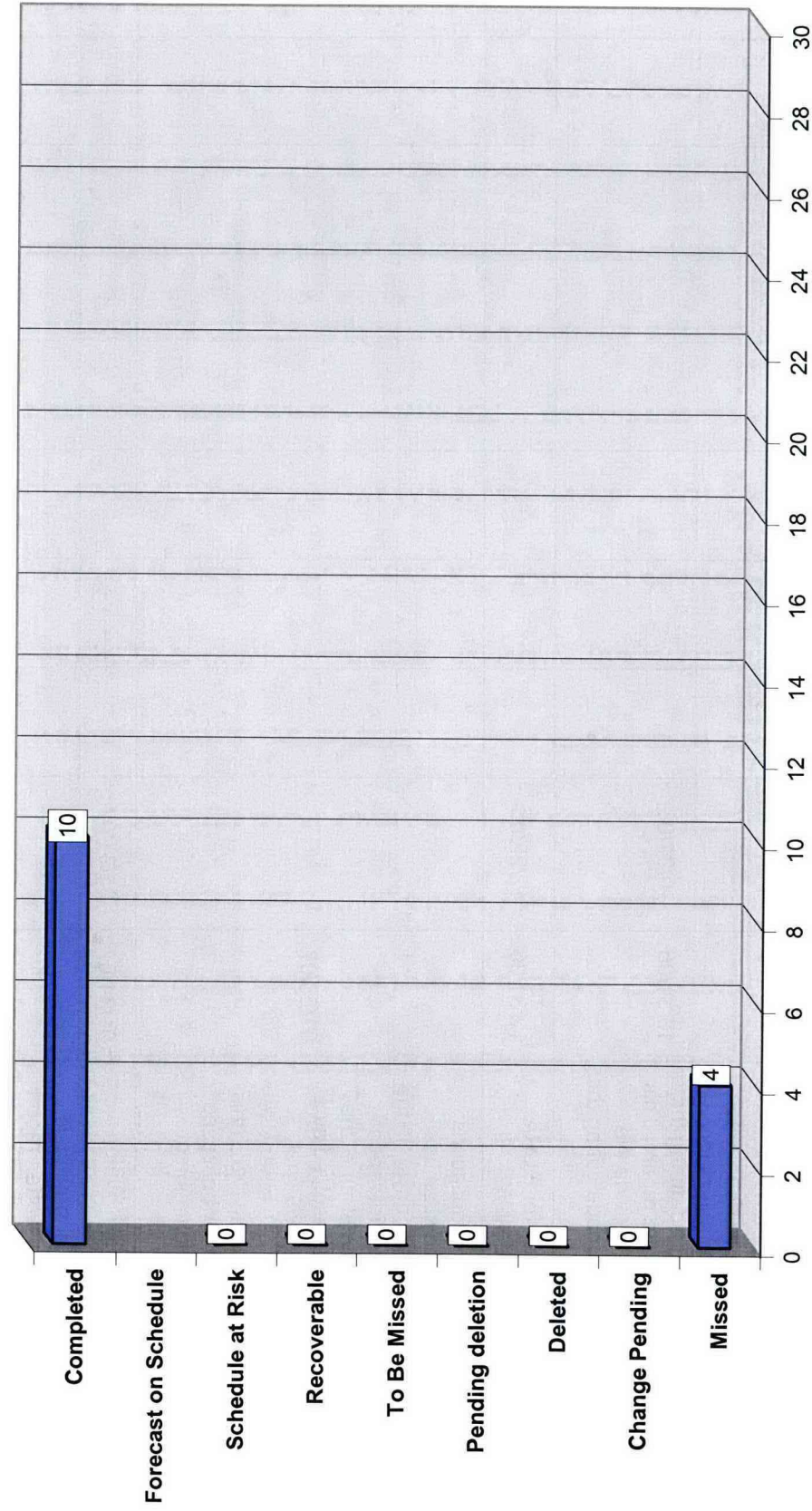
Fiscal Year 2006 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-048-07A	Complete construction of the AZ-301 condensate return system and pit upgrades. This includes: 1) Complete construction of the AZ-301 condensate return system and remove the AZ-151 catch tank system from service [see M 45-07A-A]; 2) Complete construction of AP-106A Central Pump upgrade [M-48-07A-B]; and 3) complete construction of SY-B Valve Pit upgrade [see M 48-07A-C].	06/30/06	06/08/06								
M-048-07A-C	Completion of construction for the 241-SY-B valve pit upgrade (remove existing equipment, evaluate pit integrity, and replace pit coating, if necessary). This scheduled deliverable is a subset of M-48-07A, and thus labeled as M-48-07A-C.	06/30/06	06/08/06								
M-048-07B	The Disposition of all Double-Shell Tank Transfer System Components that will not remain in use beyond June 30, 2005.	06/30/06	6/22/06								
M-062-08	Submittal Of Hanford Tank Waste Supplemental Treatment Technologies Report, Draft Hanford Tank Waste Treatment Baseline, And Draft Negotiations Agreement In Principle (AIP).	06/3/06						X			

Fiscal Year 2006 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-045-56B	Ecology and DOE agree, at a minimum, to meet yearly (by July or as needed to support annual budgeting) for the specific purpose of assessing the adequacy of information, and the need for the establishment of additional agreement interim measures.	07/01/06	07/01/06								
M-062-01M	Submit Semi-Annual Project Compliance Report.	07/31/06	07/31/06								
M-045-00B	Complete specified "near term" SST waste retrieval and interim closure activities, to result in the retrieval of all tank wastes in WMA-C SSTs pursuant to the agreement criteria in milestone M-45-00.	09/30/06						X			
M-045-00C	Initiate negotiation of SST waste retrieval and closure activities and associated schedules (for the period February 07 through August 08).	09/30/06						X			

FY 2007 MILESTONE PERFORMANCE



Fiscal Year 2007 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R30	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	10/31/06	10/31/06								
M-062-03	Submit DOE Petition for RCRA Delisting of Vitrified HLW.	12/31/06	12/22/06								
M-045-00C-A	Ecology and DOE negotiations under this milestone shall be completed within 120 days. In the event the parties do not reach agreement within timeframe, the negotiations will be resolved as a resolution of dispute via final determination. Unless otherwise agreed by Ecology and DOE, this final determination will be issued within 150 days of initiation of negotiations.	01/28/07						X			
M-062-01N	Submit Semi-Annual Project Compliance Report.	01/31/07	01/31/07								
D-001-00-R31	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	01/31/07	01/26/07								

Fiscal Year 2007 Tri-Party Agreement Milestone Status

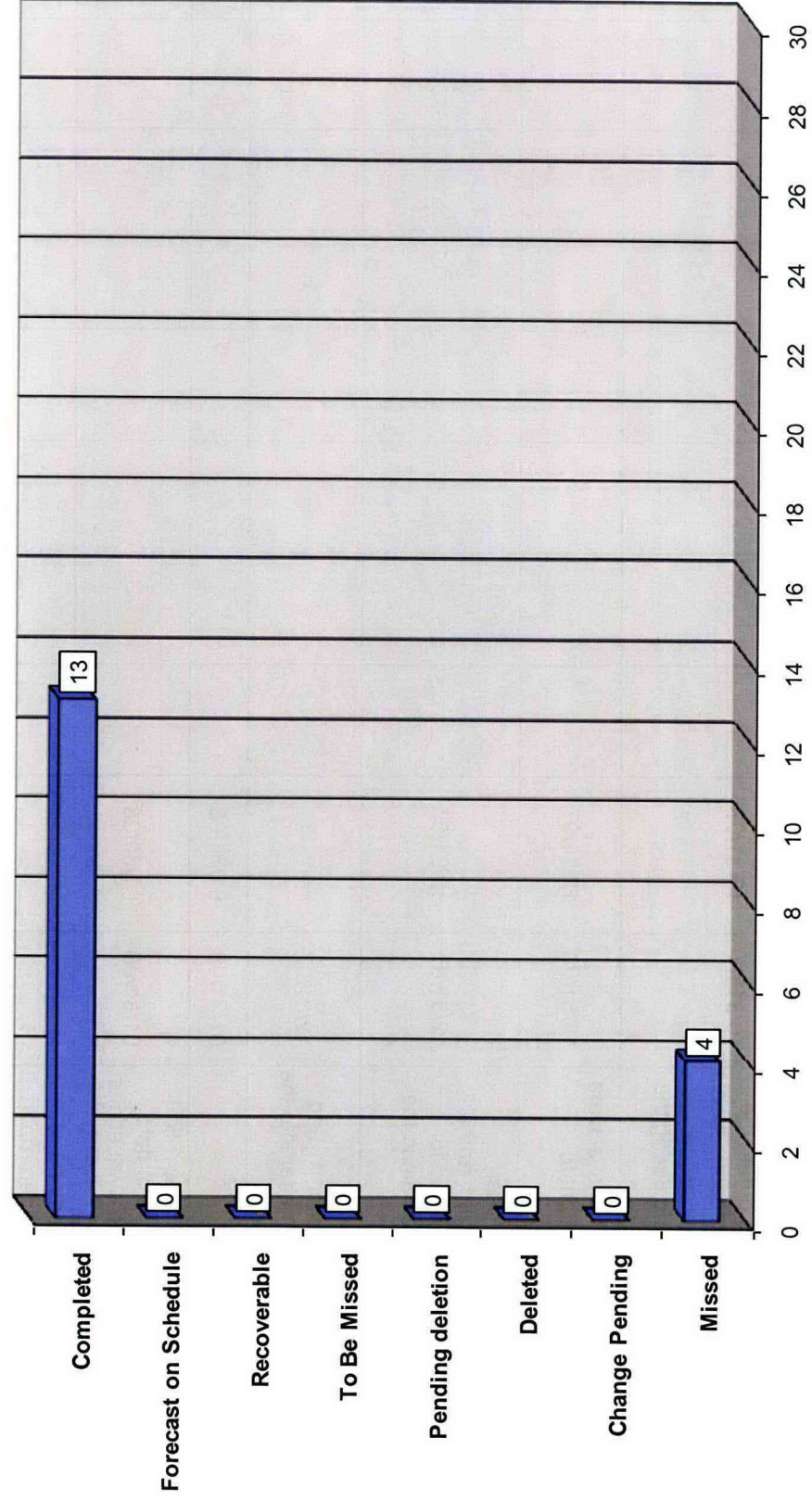
Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-045-05A	Complete Waste Retrieval from S-102.	3/31/07						X			
D-001-00-R32	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	04/30/07	04/27/07								
M-062-11	Submit a Final Hanford Tank Waste Treatment Baseline. Following completion of negotiations required by M-62-08, DOE will modify its draft baseline as required and submit its revised, agreed-to baseline for treating all Hanford Tank Waste (HLW, LAW, and TRU) by 12/31/2028.	06/30/07						X			
M-045-56C	Ecology and DOE agree, at a minimum, to meet yearly (by July or as needed to support annual budgeting) for the specific purpose of assessing the adequacy of information, and the need for the establishment of additional agreement interim measures.	07/31/07	07/24/07								

Fiscal Year 2007 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R33	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	07/31/07	07/30/07								
M-062-01O	Submit Semi-Annual Project Compliance Report.	07/31/07	07/31/07								
M-048-15	Submit a report to Ecology for the re-examination of six (6) DSTs by ultrasonic testing in all areas previously examined to provide comparative data from which to calculate corrosion rates in each of the six DSTs examined.	09/30/07	09/26/07								
M-045-05-T05	Initiate tank retrieval from five additional single-shell tanks.	09/30/07						X			
M-048-00	Complete Tank Integrity Assessment activities for Hanford's Double Shell Tank (DST) system.	09/30/07	09/26/07								

* Milestone has been completed by ORP; Ecology has not yet concurred.

FY 2008 MILESTONE PERFORMANCE



Fiscal Year 2008 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R34	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	10/31/07	10/31/07								
M-045-13-A	Submit to Ecology a Retrieval Data Report for S-112 pursuant to Agreement Appendix I.	12/31/07	12/21/07								
M-045-13-B	Remaining waste has been adequately characterized, and a risk assessment completed for S-112 residuals that remain in the tank.	12/31/07	12/21/07								
M-062-07B	Complete Assembly of LAW Vitrification Facility melter #1 and complete move of #1 melter into the HLW Vitrification Facility	12/31/07						X			
M-062-01P	Submit Semi-Annual Project Compliance Report.	01/31/08	01/31/08								
M-045-55	Submit to Ecology a Phase 1 RFI report integrating results of data gathering activities and evaluations for all SST WMAs.	01/31/08	01/30/08								
D-001-00-R35	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	01/31/08	01/31/08								

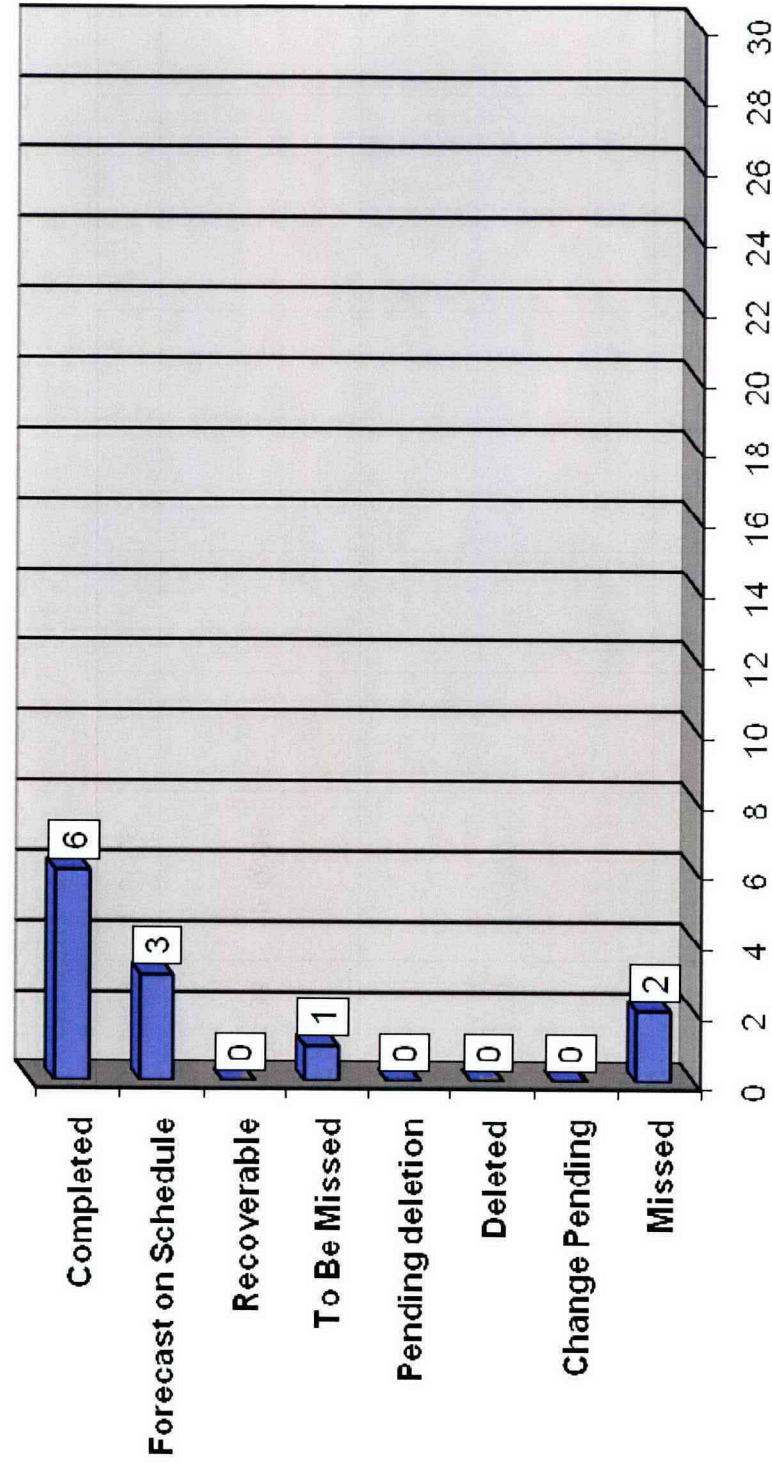
Fiscal Year 2008 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-045-00D	Initiate negotiations of SST waste retrieval and closure for 2008-2013.	01/31/08						X			
M-045-02N	Submit Biennial Update.	03/01/08	02/29/08								
M-045-02N-A	Three Parties shall meet to establish new milestones within 60 days, if required, for acquisition of additional tanks.	06/02/08	01/22/09								
D-001-00-R36	DOE shall, on a quarterly basis, submit to ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	04/30/08	04/30/08								
M-045-00D-A	Negotiations shall be complete within 150 days.	06/29/08						X			
M-045-56D	Ecology and DOE agree, at a minimum, to meet yearly (by July or as needed to support annual budgeting) for the specific purpose of assessing the adequacy of information, and the need for the establishment of additional agreement interim measures.	07/31/08	07/22/08								
D-001-00-R37	DOE shall, on a quarterly basis, submit to ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	07/31/08	07/31/08								

Fiscal Year 2008 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-062-01Q	Submit Semi-Annual Project Compliance Report.	07/31/08	07/30/08								
M-090-10	Ready to accept placement of ILAW in ILAW Disposal Facility.	08/31/08	02/13/07								
M-45-05-T06	Initiate tank retrieval from five additional SSTs.	09/30/08						X			

FY 2009 MILESTONE PERFORMANCE



Fiscal Year 2009 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R38	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	10/31/08	10/28/08								
M-045-58	Submit to Ecology for Review and Approval as an Agreement Primary Document Phase 2 Master Work Plan that describes the proposed approach for the completion of Corrective Action to meet final closure requirements in the Waste Management Areas as described in Appendix I, Section 2.3	12/31/08	12/18/08								
M-045-60	Submit to Ecology for review and approval as an agreement primary document, DOE's Phase 2 RFI/CMS Work Plan and Sampling and Analysis Plan (SAP) for WMA C.	12/31/08	12/18/08								
M-062-01R	Submit Semi-Annual Project Compliance Report	01/31/09	01/30/09								

Fiscal Year 2009 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R39	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	01/31/09	01/30/09								
M-062-09	Start Cold Commissioning – Waste Treatment Plant	02/28/09						X			
M-47-03A	Complete startup/turnover for waste retrieval mobilization systems for selected initial tank high-level waste feed tank	03/31/09						X			
D-001-00-R40	DOE shall, on a quarterly basis, submit to ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	04/30/09	04/29/09								
M-045-56E	Ecology and DOE agree, at a minimum, to meet yearly (by July or as needed to support annual budgeting) for the specific purpose of assessing the adequacy of information, and the need for the establishment of additional agreement interim measures.	07/31/09		X							

Fiscal Year 2009 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R41	DOE shall, on a quarterly basis, submit to ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	07/31/09		X							
M-062-01S	Submit Semi-Annual Project Compliance Report	07/31/09		X							
M-045-05-T07	Initiate tank retrieval from 7 additional SSTs	09/30/09					X				

Tank Farm Project Executive Summary

May Reporting

General

The earned value analysis is a comparison of cost and schedule performance to a one-year Interim Performance Measurement Baseline (IPMB). The one-year IPMB was developed as part of contract transition and is based on expected funding levels for fiscal year (FY) 2009. The earned value analysis is not intended to be a measurement of performance against existing Tri-Party Agreement Milestones.

The earned value performance reporting reflects the format, Work Breakdown Structure (WBS) reporting levels, and variance thresholds as agreed to with the Tank Farms Operations Contractor (TOC) for monthly performance reporting.

The following information is a summary of cumulative-to -date earned value performance.

PROJECT BASELINE PERFORMANCE STATUS

WRPS May Project Performance - (\$K)										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	24,121.5	22,617.5	22,666.8	-1,504.0	-49.2	0.94	1.00			
CTD	155,206.5	153,220.0	141,063.5	-1,986.5	12,156.5	0.99	1.09	247,714.0	237,025.0	10,689.0

The Current Month (CM) Schedule Variance (SV) was -\$1,504K with a Schedule Performance Index (SPI) of 0.94; the CM Cost Variance (CV) was -\$49K with a Cost Performance Index (CPI) of 1.00. The Cumulative to Date (CTD) SV was -\$1,987K with an SPI of 0.99; the CTD CV was \$12,157K with a CPI of 1.09.

The unfavorable CTD SV of -\$1,987K is primarily due to:

Base Operations (-\$1,499K): primarily attributable to:

- *DST Space Management* due to late start on tank recirculation efforts, and DST to DST Transfers due to sequence changes resulting from 242-A Evaporator delays; degrading/failed transfer equipment; and 242-A Facility maintenance issues.

- *Tank Farm Upgrades* were negatively impacted due to: AW-B field work delays pending Evaporator campaign completion; Cathodic Protection Rectifier adjustments not being completed as a result of late completion of annual Cathodic Protection System adjustments; and 242-A Evaporator Upgrades due to a lack of Engineering resources currently focused on emergent higher priority work.

Retrieval and Closure (-\$852K): prime contributors to the CTD SV are:

- *C-104 Retrieval* due to removing unplanned water from the 04B-Pit; using absorbent to clean out remnants in 04B-Pit; high RAD conditions in 04A-Pit; delays in procurement and construction contract awards; and resolution of CGID issues.
- *C Farm Infrastructure* due to resource priority given to C-110 Retrieval Operations and C-104 Construction; delays in procurement and construction contract awards; and resolution of CGID issues on Safety Significant components. The negative CTD SV is partly offset by C-110 Retrieval due to the acceleration and completion of C-110 Construction and Retrieval Operations.

The primary contributors to the favorable CTD CV of \$12,157K are:

- *Business Services* due to Business and Occupation (B&O) tax being eliminated due to the high technology credit; lower than planned cost for Materials; below planned levels in company travel and labor; and labor under-runs associated with unfilled staffing positions.
- *Workforce Resources* due to training class attendance being below plan and labor under-runs in the Training Program.
- *Recovery Act due to delays in resolving* technical and cost evaluations and had to be resolved before issuance of the contract, therefore very little cost was incurred during the AWA 45-day time period. Also due to the uncertainties of the work scope to be funded by the Recovery Act, Project managers delayed hiring staff until RA work scope for CLIN 3 was finalized; therefore the cost for new hires was under run.

Retrieval and Closure (+\$1,244K) due to:

- *HIHTL Disposition* due to efficiencies in engineering and field work activities
- *Catch Tank & Pipeline Reporting* due to using direct labor rather than contract dollars for the initial planning scope, as well as, efficiencies gained in Catch Tanks and Pipeline Report by using existing resources.

The CTD CV was partially offset by:

- *Base Operations* due to TSR Surveillance & Maintenance expending more labor than planned to perform maintenance activities; and the labor budget planned was significant underestimated
- *Retrieval Technology Development (-\$1,086K)* due to increased costs resulting from the technical change approach of the MARS; and *Retrieval Program Management* primarily due to higher than planned costs for HPT readiness.

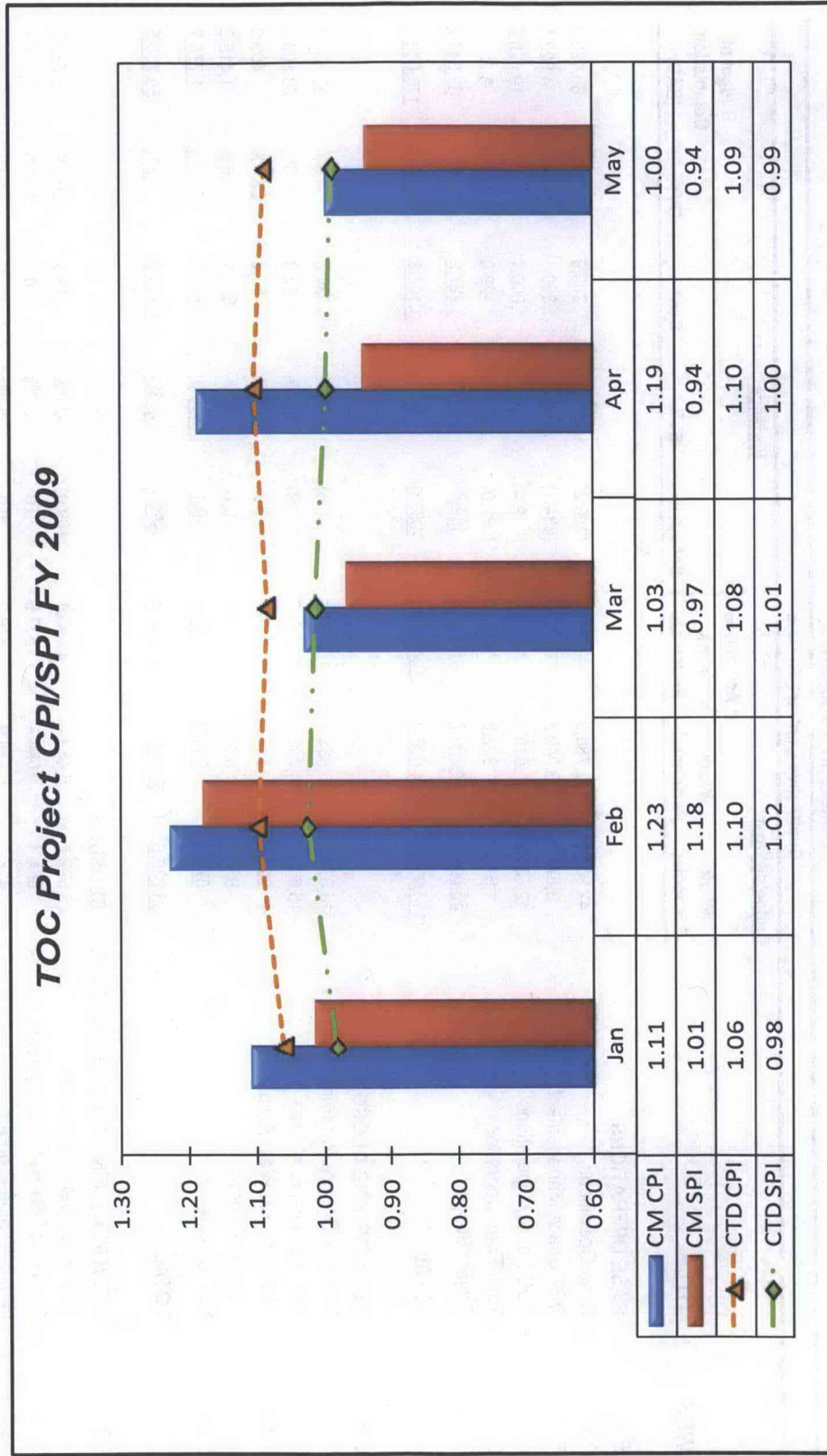
CONTRACT-TO-DATE PERFORMANCE MEASUREMENT - 10/2008 - 05/2009

BY WORK BREAKDOWN STRUCTURE

Dollars in Thousands

Cumulative Contract-To-Date										
WBS	TITLE	Budgeted Cost			Actual Cost		Variance			Budget at Completion (BAC)
		Work Scheduled	Work Performed	Work Performed	Work Performed	Schedule	SV%	Cost	CV%	
5.1	BASE OPERATIONS									
5.1.1	Base Operations	42,982.5	42,786.3	42,497.4		(196.2)	-0.5%	288.9	0.7%	66,103.3
5.1.2	DST Space Management	3,676.4	3,042.3	4,422.4		(634.1)	-17.2%	-1,380.1	-45.4%	4,923.1
5.1.3	TOC Facility Operations	12,539.3	12,548.7	11,548.6		9.4	0.1%	1,000.1	8.0%	19,470.5
5.1.4	Tank Farm Upgrades	1,914.0	1,332.0	1,360.0		(582.0)	-30.4%	-28.0	-2.1%	3,222.7
5.1.5	Project Support	<u>53,844.1</u>	<u>54,296.7</u>	<u>45,068.8</u>		<u>452.6</u>	<u>0.8%</u>	<u>9,227.9</u>	<u>17.0%</u>	<u>82,344.2</u>
	TOTAL	<u>114,956.3</u>	<u>114,006.0</u>	<u>104,897.2</u>		<u>-950.3</u>	<u>-0.8%</u>	<u>9,108.8</u>	<u>8.0%</u>	<u>176,063.8</u>
5.2	RETRIEVE AND CLOSE SSTs									
5.2.1	Retrieval/Closure Program	15,874.3	15,835.8	15,101.4		(38.5)	-0.2%	734.6	4.6%	28,466.3
5.2.2	SST Retrieval East Area	15,638.0	14,795.8	14,993.7		(163.9)	-5.4%	-198.0	-1.3%	28,390.0
5.2.3	SST Retrieval West Area	224.5	233.7	178.5		9.2	4.0%	55.2	23.6%	409.0
5.2.4	Closure Program	928.2	928.9	607.8		0.7	0.1%	321.1	34.6%	1,415.3
5.2.5	SST Closure	<u>571.8</u>	<u>590.9</u>	<u>260.0</u>		<u>19.1</u>	<u>(330.9)</u>	<u>(163.9)</u>	<u>56.0%</u>	<u>1,775.2</u>
	TOTAL	<u>33,236.8</u>	<u>32,385.1</u>	<u>31,141.4</u>		<u>-851.7</u>	<u>-2.6%</u>	<u>1,243.8</u>	<u>3.8%</u>	<u>59,730.5</u>
5.3	WFD/TREATMENT PLNG/DST RETRIEVAL/CLOSURE									
5.3.1	WTP Feed Delivery Program	5,572.4	5,463.4	4,045.4		(109.0)	-2.0%	1,418.0	26.0%	8,780.7
5.3.2	Construct DST Retrieval Systems	664.4	664.4	533.5		0.0	0.0%	130.9	19.7%	1,089.4
5.3.6	Immobilization Program	418.0	418.0	416.2		0.0	0.0%	1.8	0.4%	650.2
5.3.7	WTP Operational Readiness	<u>307.7</u>	<u>252.8</u>	<u>28.3</u>		<u>(54.9)</u>	<u>-17.9%</u>	<u>224.5</u>	<u>88.8%</u>	<u>1,099.0</u>
	TOTAL	<u>6,962.5</u>	<u>6,798.6</u>	<u>5,023.4</u>		<u>(163.9)</u>	<u>(2.4)</u>	<u>1,775.2</u>	<u>26.1</u>	<u>11,619.3</u>
5.4	SUPPLEMENTAL TREATMENT									
5.4.1	Supplemental Treatment	<u>50.6</u>	<u>30.0</u>	<u>1.7</u>		<u>(20.6)</u>	<u>-40.7%</u>	<u>28.3</u>	<u>94.2%</u>	<u>300.4</u>
	TOC TOTAL	<u>155,206.2</u>	<u>153,220.0</u>	<u>141,063.5</u>		<u>-1,986.5</u>	<u>-1.3%</u>	<u>12,156.5</u>	<u>7.9%</u>	<u>247,714.0</u>

TOC CPI/SPI Statistics



Milestone M-45,-50,-60 Single-Shell Tank Corrective Action

I. Near-Term Deliverables:

- **M-45-56F, Complete Implementation of Agreed to Interim Measures**

Due: 07/31/09

Status:

1. ORP and the TOC reported to Ecology on the assessment of design alternatives for future interim barriers.
2. The TOC provided to ORP a Barrier Prioritization document, for transmittal to Ecology. Ecology had reviewed the draft of this document and their comments were incorporated.
3. The annual meeting to discuss Interim Measures per this milestone has been set for July 21, 2009.

- **M-45-58, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 Master Work Plan that describes the proposed approach for the completion of Corrective Action to meet Final Closure Requirements in the Waste Management Areas as described in Appendix I, Section 2.3**

Due: 12/31/08

Status: Complete. Report transmitted by ORP/Richland Operations Office (RL) to Ecology on December 23, 2008. Ecology comments are complete and were transmitted to ORP/RL the week of April 20, 2009. A response was transmitted to Ecology on May 19, 2009. The response outlined a plan for resolving comments through a series of workshops on SST System corrective actions and closure planning.

- **M-45-60, Submit to Ecology for review and approval as an Agreement primary document DOE's Phase 2 RFI/CMS Work Plan and Sampling and Analysis Plan (SAP) for WMA C**

Due: 12/31/08

Status: Complete. Report transmitted by ORP/RL to Ecology on December 19, 2008. Ecology comments on the SAP and workplan are complete and were transmitted individually to ORP/RL the week of April 20, 2009. Responses have been prepared by ORP and were transmitted to Ecology on June 24, 2009.

- **M-45-61, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 RCRA Facility Investigation/Corrective Measures Study Report for WMA C**

Due: 12/31/10

Status: At Risk. See issues below.

- **M-45-62, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 Corrective Measures Implementation Work Plan for WMA C**

Due: 7/31/12

Status: At Risk. See issues below.

II. Significant Accomplishments:

- T-Farm interim barrier monitoring continues.
- Continued direct push characterization in C Farm per the Phase 2 RFI/CMS work plan and SAP for WMA C.
- Continued direct push characterization in SX Farm in support of Interim Barrier Design
- Completed collection of surface-to-surface resistivity data in SX Farm.
- Continued the joint process with Ecology and other regulatory agencies and stakeholders to define the inputs, approaches, assumptions and methods that will be used for development of a performance assessment for Waste Management Area C.
- Continued design efforts for Interim Surface Barrier at TY Farm.
- Delivered report on the results of the C Farm 3D SGE Survey, RPP-RPT-41326.
- Delivered Interim Barrier Prioritization document, RPP-ENV-41309.
- An interim measures maintenance plan was submitted to ORP on June 15, 2009 via letter WRPS-0900388.

III. Significant Planned Actions in the Next Six Months:

-
- Complete SGE data analysis for SX-Farm.
- Initiate SGE data collection at two additional UPR sites in C Farm.
- Continue direct push campaigns in both SX and C farms.
-

IV. Issues

- The transmittal letter for M-45-50 (WMA C work plan and SAP) indicated that the scope of characterization activities identified in the plan could not be completed in time to support the currently scheduled dates for M-45-61 and M-45-62. Discussion of a change proposal will be initiated.
- There is no apparent maintenance plan for the ongoing maintenance of interim measures.

Milestone M-45-00, Complete Closure of All Single-Shell Tank Farms SST Retrieval and Closure Program

I. Deliverables

- **M-45-00, Complete Closure of all Single-Shell Tank Farms**
Due: 9/30/24
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-00B, Complete Specified "Near-Term" SST Waste Retrieval and Interim Closure Activities, to Result in the Retrieval of all Tank Wastes in WMA-C SSTs Pursuant to the Agreement Criteria in Milestone M-45-00**
Due: 9/30/06 (Or as otherwise indicated within the descriptive text of this milestone.)
Status: Missed.
 - Completion of four limits of technology retrieval demonstrations:
 - Saltcake dissolution (S-112): Completed (M-45-03C).
 - Modified sluicing (C-106): Completed.
 - Vacuum retrieval (C-200s): Completed; C-203 field retrieval operations completed on March 24, 2005; C-202 retrieval completed on August 11, 2005; C-201 retrieval completed on March 23, 2006; C-204 retrieval completed on December 11, 2006.
 - Mobile retrieval (C-101, C-105, C-110 or C-111): Not completed. C-101 start of retrieval is currently projected for FY 2011. (Note: C-110 has had retrieval commence using modified sluicing in compliance with a -C-111 will have retrieval performed using modified sluicing in compliance with a TWRWP to be submitted to Ecology.)
 - Implementation of full-scale leak detection monitoring and mitigation (LDMM) technologies for the first three 100-series tank retrievals following Tank S-112:
 - Tank S-102: High Resolution Resistivity System (HRR) installed; supporting retrieval operations.
 - Tank C-103: HRR demonstration complete.
 - Tank C-108: HRR installed; supporting retrieval operations.
 - Completed HRR injection tests at S-102.
 - Submitted HRR evaluation report and recommendation for further deployment.
 - Submittal of Tank Waste Retrieval Work Plans (TWRWP):
 - Tanks C-201, C-202, C-203, and C-204: Completed on April 8, 2004.
 - Two (2) 100-series tanks by July 31, 2004: Completed on July 29, 2004 (C-103 and C-109).
 - Four (4) 100-series tanks by 10/31/04: Completed on October 8, 2004 (C-102, C-104, C-107, C-108, and C-112).

- Five (5) 100-series tanks by January 31, 2005: Completed on January 24, 2005 (C-101, C-105, C-110, and C-111).
- **M-45-00C, Initiate Negotiation of SST Waste Retrieval and Closure Activities and Associated Schedules (for the period February 2007 through August 2008)**
Due: 9/30/06
Status: Missed.
- **M-45-00D, Initiate Negotiation of the SST Waste Retrieval and Closure Activities (for the period September 2008 to September 2013)**
Due: 1/31/08
Status: Missed.
- **M-45-00D-A, Ecology and DOE Negotiations Shall Be Completed within 150 days.**
Due: 06/28/08
Status: Missed
- **M-45-00E, Initiate Negotiation of SST Waste Retrieval and Closure Activities for the Remainder of the SST Program**
Due: 10/31/12
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-00E-A, Ecology and DOE Negotiations Shall Be Completed within 120 Days.**
Due: 02/27/13
- **M-45-05, Retrieve Waste from all Remaining Single-Shell Tanks**
Due: 9/30/18
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T05, Initiate Tank Retrieval from Five Additional Single-Shell Tanks**
Due: 9/30/07
Status: Missed.
- **M-45-05-T06, Initiate Tank Retrieval from Five Additional Single-Shell Tanks**
Due: 9/30/08
Status: Missed.
- **M-45-05-T07, Initiate Tank Retrieval from Seven Additional Single-Shell Tanks**
Due: 9/30/09
Status: To Be Missed (based on current DOE Baseline planning).

- **M-45-05-T08, Initiate Tank Retrieval from Eight Additional Single-Shell Tanks**
Due: 9/30/10
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T09, Initiate Tank Retrieval from Ten Additional Single-Shell Tanks**
Due: 9/30/11
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T10, Initiate Tank Retrieval from 12 Additional Single-Shell Tanks**
Due: 9/30/12
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T11, Initiate Tank Retrieval from 14 Additional Single-Shell Tanks**
Due: 9/30/13
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T12, Initiate Tank Retrieval from 17 Additional Single-Shell Tanks**
Due: 9/30/14
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T13, Initiate Tank Retrieval from 20 Additional Single-Shell Tanks**
Due: 9/30/15
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T14, Initiate Tank Retrieval from 20 Additional Single-Shell Tanks**
Due: 9/30/16
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T15, Initiate Tank Retrieval from 20 Additional Single-Shell Tanks**
Due: 9/30/17
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-06, Complete Closure of all Single-Shell Tank Farms in Accordance with Approved Closure/Post Closure Plan(s)**
Due: 9/30/24
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-06-T03, Initiate Closure Actions on a WMA Basis**
Due: 3/31/12
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-06-T04, Complete Closure Actions on one WMA**
Due: 3/31/14
Status: To Be Missed (based on current DOE Baseline planning).

II. Significant Accomplishments

- Continued C-111 ventilation and equipment installation design.
- Initiated procurement of long-lead equipment on C-111.
- Completed C-111 design media for legacy equipment removal.
- Completed C-104 sluicer installation in Riser 6.
- Completed C-104/AN-101 HIHTL installations and pneumatic testing.
- Completed C-104 control trailer connections.
- Completed C-108 camera installations to support Off Riser Sampling.
- Awarded C-111 contract for Slurry pump.

III. Significant Planned Activities in the Next Six Months

- Continue design of retrieval system for Tank C-111.
- Complete construction activities at Tank C-104 and begin retrieval.
- Initiate removal of legacy equipment from C-111.
- Complete C-111 design media for system installation.
- Award C-111 construction contract for equipment removal and ventilation installation.
- Award C-111 construction contract for retrieval system installation.
- Sample and analyze C-108 heel using the Off-Riser Sampling System.

IV. Issues

- Milestones M-45-00B (retrieve all C Farm tanks), M-45-00C (initiate negotiations on SST retrievals for 2007-2008), and M-45-00D (initiate negotiations on SST retrievals for 2008-2013) were missed. TPA negotiations to address these and other milestones were halted when the State of Washington filed a lawsuit over the missed milestones.
- Ecology formally requested re-start dates for C-108, C-109, C-110, and S-102 in a letter dated October 13, 2008. Restart dates for these retrievals are in the process of being identified.

C-FARM RETRIEVAL SUMMARY SCHEDULE FORECASTS ^a

Tank	Final Design Drawings complete	Construction Complete	Process Control Plan Complete	Start Retrieval	Complete Retrieval	TSAP Complete	Retrieval Data Report or Appendix H to Ecology/EPA
C-101	TBD	TBD	TBD	TBD	TBD	TBD	TBD
C-102	1/14/11	10/13/11	12/9/12	1/9/12	11/20/12	10/20/12	11/18/13
C-103	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-104	7/22/09	8/6/09	7/22/09	10/2/09	2/25/10	1/25/10	1/27/11
C-105	5/2/12	6/5/13	7/30/13	8/30/13	3/6/14	2/6/14	12/4/14
C-106	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-107	3/21/14	12/19/14	2/26/15	3/26/15	12/18/15	11/18/15	4/26/17
C-108 ^c	Complete	Complete	Complete	Complete	TBD	TBD	TBD
C-109 ^{cd}	Complete	Complete	Complete	Complete	TBD	TBD	TBD
C-110 ^b	Complete	Complete	Complete	Complete	Complete ^c	11/2/09	6/29/10
C-111	TBD	TBD	TBD	TBD	TBD	TBD	TBD
C-112	10/18/13	7/23/14	9/9/14	10/9/14	3/25/15	2/25/15	3/1/17
C-201	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-202	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-203	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-204	Complete	Complete	Complete	Complete	Complete	Complete	Complete

- a. Completion dates are based on the statused June month-end Integrated Mission Execution Schedule (IMES) as of 7/1/09 and are subject to change as efforts continue to identify and implement schedule efficiencies.
- b. Projected dates for C-110 are based on utilizing modified sluicing technology and availability of acceleration funding.
- c. Sluicing was performed to the limits of the sluicing system technology.
- d. Hard Heel Retrieval using MRT complete to limits of technology, not achieving less than 360 cu ft residual, awaiting future retrieval path forward.
- f. NOTE: For all tanks with a "TBD" in a column, dates will be identified for those "TBDs" following development of the PMB. The PMB will be based on the system plan, which will be approved by Ecology.

SST RETRIEVAL SEQUENCE DOCUMENT

I. Deliverables

- **M-45-02N, Submit Biennial Update of SST Retrieval Sequence Document (Agreement Appendix I, Section 2.1.2), and Double-Shell Tank Space Evaluation Document and Ecology Concurrence of Additional Tank Acquisition Within 60-days (see text of M-45-02N for further details)**
Due: 3/1/08 (Parties to meet annually to agree on SSTs to be retrieved during the coming year from the tank pool.)
Status: Complete.
- **M-45-02N-A, Embedded Milestone; Within 60 days of receiving the DST Space Evaluation Document, the Three Parties Shall meet to Establish New Milestones, If Required, for Acquisition of Additional Tanks**
Due: 06/02/08
Status: Complete. On May 15, 2008, Ecology transmitted comments on the M45-02N deliverable. On July 23, 2008, ORP transmitted letter 08-TF-049 to Ecology with a plan for responding to Ecology comments on and updating the Retrieval Sequence Document (RPP-21216). The revised document was submitted to Ecology on September 12, 2008, by letter 08-TF-062. Ecology approved the document on January 22, 2009, by letter 0900343.
- **M-45-02O, Submit Biennial Update of SST Retrieval Sequence Document (Agreement Appendix I, Section 2.1.2), and Double-Shell Tank Space Evaluation Document and Ecology Concurrence of Additional Tank Acquisition Within 60-days (see text of M-45-02M for further details)**
Due: 3/1/10 (Parties to meet annually to agree on SSTs to be retrieved during the coming year from the tank pool.)
Status: On schedule. Ecology has requested the Parties meet to discuss the methodology and contents of the next biennial update.
- **M-45-02O-A, 3 Parties Shall Meet To Establish New Milestones Within 60 Days**
Due: 04/30/10
Status: On Schedule.
- **M-45-02P, Submit Biennial Update of SST Retrieval Sequence Document (Agreement Appendix I, Section 2.1.2), and Double-Shell Tank Space Evaluation Document and Ecology Concurrence of Additional Tank Acquisition Within 60-days (see text of M-45-02M for further details)**
Due: 3/1/12 (Biennially thereafter. Parties to meet annually to agree on SSTs to be retrieved during the coming year from the tank pool.)
Status: On schedule.

- **M-45-02P-A, Embedded Milestone; Within 60 days of receiving the DST Space Evaluation Document, the Three Parties Shall meet to Establish New Milestones, If Required, for Acquisition of Additional Tanks**
Due: 4/30/12
Status: On schedule.
- **M-45-02Q, Submit Biennial Update to SST Retrieval Sequence Document**
Due: 03/01/14
Status: On Schedule
- **M-45-02Q-A, 3 Parties Shall Meet to Establish New Milestones Within 60 Days**
Due: 04/30/14
Status: On Schedule
- **M-045-02R, Submit Biennial Update to SST Retrieval Sequence Document**
Due: 03/01/16
Status: On Schedule
- **M-045-02R-A, 3 Parties Shall Meet to Establish New Milestones Within 60 Days**
Due: 04/30/16
Status: On Schedule
- **M-45-02S, Submit Biennial Update to SST Retrieval Sequence Document**
Due: 03/01/18
Status: On Schedule
- **M-45-02S-A, 3 Parties Shall Meet to Establish New Milestones Within 60 Days**
Due: 04/30/18
Status: On Schedule

II. Significant Accomplishments

None.

III. Significant Planned Activities in the Next Six Months

- None.

IV. Issues

- None.

TANK RETRIEVALS WITH INDIVIDUAL MILESTONES**Tank 241-C-106****I. Deliverables**

- **M-45-05M-T01, Submit C-106 Waste Retrieval Results, Analysis of Residual Waste(s), and (if appropriate) Request for Exception to the Criteria Pursuant to Agreement Appendix H**

Due: 2/27/04

Status: Complete.

II. Significant Accomplishments

- None.

III. Significant Planned Activities (PA) in the Next Six Months

- Continue U.S. Nuclear Regulatory Commission (NRC) review of the C-106 exception request. A Request for Additional Information (RAI) was received from the NRC in February 2009. (It has been discussed with the NRC that much of the additional information requested is dependent upon development of C-Farm residual waste PA and, therefore, cannot be provided until the PA is published.)
- Continue PA workshops with Ecology, EPA, NRC, and DOE HQ focused on residual waste in C Farm tanks and pipelines following retrieval.

IV. Issues

- C-106 Closure Plan approval and SST radiological Categorical Notice of Construction (NOC) Phase 3 (closure) and a toxics categorical NOC application are pending completion of the Tank Closure and Waste Management Environmental Impact Statement (EIS) and associated Record of Decision (ROD); forecast completion for the final EIS ROD is in 2010.

Tank 241-S-102**I. Deliverables**

- **M-45-05A, Complete Waste Retrieval from Tank S-102**

Due: 3/31/07

Status: Missed. As a result of equipment failure on March 14, 2007, retrieval operations were suspended at Tank S-102 with retrieval approximately 91% complete and approximately 423,000 gallons total waste removed. Retrieval was restarted on July 25, 2007 and halted on July 26, 2007 when an aboveground waste spill occurred. Retrieval is estimated to be approximately 93.3% complete with 433,000 gallons of total waste removed.

- **M-45-15, Interim Completion of Tank S-102 SST Waste Retrieval and Closure Demonstration Project**

Due: 6/30/11

Status: On Schedule. Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.

- **M-45-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**
Due: 6/30/11
Status: On schedule.
- **M-45-15B, Embedded Milestone, Remaining Wastes have been adequately Characterized, and a Risk Assessment has been completed for residuals that remain in the tank**
Due: 6/30/11
Status: On schedule.
- **M-45-15C, Embedded Milestone, An update to the S-102 Component Closure Activity Plan has been submitted by DOE**
Due: 6/30/11
Status: On schedule.
- **M-45-15D, Embedded Milestone, if appropriate, DOE has requested an exception to waste retrieval criteria pursuant to Agreement Appendix H**
Due: 6/30/11
Status: On schedule.

II. Significant Accomplishments

- Restarted S-102 exhauster to reduce the volume of supernatant liquid in the tank.

III. Significant Planned Activities in the Next Six Months

- Continue to operate the S-102 exhauster.

IV. Issues

- Retrieval of Tank 241-S-102 was not completed by TPA milestone date of March 31, 2007, due to pump failure.

Tank 241-S-112

I. Deliverables

- **M-45-03C, Complete Full-Scale Saltcake Waste Retrieval Technology Demonstration at Single-Shell Tank S-112**
Due: 6/30/05
Status: Complete.

- **M-45-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure Demonstration Project**

Due: 6/30/11

Status: On Schedule. Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.

- **M-45-13A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**

Due: 12/31/07

Status: Completed (ORP letter, 07-TPD-066, dated December 21, 2007). Added by Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.

- **M-45-13B, Embedded Milestone, Remaining Wastes have been adequately Characterized, and a Risk Assessment has been completed for residuals that remain in the tank**

Due: 12/31/07

Status: Completed (ORP letter, 07-TPD-066, dated December 21, 2007). Added by Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.

- **M-45-13C, Embedded Milestone, An update to the S-112 Component Closure Activity Plan has been submitted by DOE**

Due: 6/30/11

Status: On schedule.

- **M-45-13D, Embedded Milestone, if appropriate, DOE has requested an exception to waste retrieval criteria pursuant to Agreement Appendix H**

Due: 6/30/11

Status: On schedule.

II. Significant Accomplishments

- Ecology letter of August 28, 2008, concurred with ORP that retrieval of Tank S-112 is complete.

III. Significant Planned Activities in the Next Six Months

- None.

IV. Issues

- None.

Interim Stabilization Consent Decree

I. Near-Term Deliverables:

D-001-00, Complete Interim Stabilization of all 29 SSTs

Due: 09/30/04

Status: Completed on March 31, 2004, with discontinuation of pumping in U-108 and subsequent consultation with Ecology staff. Interim stabilization of S-102 and S-112 held in abeyance by third amendment to the Consent Decree. ORP's obligation to interim stabilize S-112 was satisfied upon completion of retrieval operations. Retrieval of S-102 has been impacted by the spill at this tank. A video taken in S-102 in November 2008 indicates the tank supernatant liquid probably exceeds the 5,000 gallons maximum for a tank to meet IS criteria.

II. Significant Accomplishments:

- Restarted S-102 exhauster to reduce the volume of supernatant liquid in the tank.

III. Significant Planned Actions in the Next 6 Months:

- Continue to operate the S-102 exhauster.

IV. Issues

Tank S-102 retrieval not completed by milestone M-45-05A date of March 31, 2007.

In Tank Characterization and Summary

For the period from June 1 – June 30, 2009:

I. Accomplishments:

- Completed post caustic addition grab sampling of tank 241-AN-106 on June 23, 2009.

II. Planned Action within the next Six Months:

- Tank Sampling
 - Tank 241-AZ-102 liquid grab samples scheduled for August 2009.
 - Tank 241-AP-107 evaporator grab samples scheduled for September 2009.
 - Tank 241-AY-101 liquid grab samples scheduled for November 2009.
 - Tank 241-AN-101 mid C-104 retrieval samples scheduled for November 2009.
 - Tank 241-C-108 solid samples for retrieval data scheduled for July 2009.
 - Tank 241-AN-102 corrosion mitigation samples scheduled for September 2009.
- BBI Updates
 - Six of the seven tank updates planned for the third quarter of FY 2009 are complete and will be published to TWINS by July 15, 2009. Due to a delay in the analytical data, the seventh tank will be included in the fourth quarter update.
 - In addition, OH⁻ concentrations were added for all waste types in every tank where data was missing. This information will be published to TWINS by July 15, 2009.
- Data Quality Objectives (DQO)
 - Complete revision 4 of the SST Component Closure DQO in July 2009.
 - Complete revision 7 of the Evaporator DQO in August 2009.
 - Complete revision 10 of the Chemistry Control DQO in September 2009.

III. Issues:

- None.

Milestone M-47-00, Complete Work Necessary to Support Acquisition and Phase I Operations of Hanford Site High-Level Radioactive Waste Treatment, Storage, and Disposal Facilities

I. Near-Term Deliverables:

- **M-47-03A, Complete startup and turnover activities for waste retrieval and mobilization systems for selected initial high-level waste feed tank**
Due: 03/31/09
Status: Missed.
- **M-47-06, Complete negotiation of additional agreement requirements (milestones, target dates, and associated language) governing work necessary to support completion of treatment complex Phase I operations by 2018**
Due: 06/30/10
Status: Negotiations are not yet underway.

II. Significant Accomplishments:

- None.

III. Significant Planned Actions in the Next Six Months:

- None.

IV. Near-term Actions Needed by DOE or Ecology:

- None.

V. Issues:

- Nothing to report.

242-A Evaporator Status (previously reported under Milestone M-48, which has been closed out)

EVAPORATOR CAMPAIGNS

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY09	09-01	AP-101/AP-105	AP-104	Entered OPERATION MODE on 3/17/09 and returned to SHUTDOWN MODE on June 25, 2009. Campaign 09-01/09-02 processed approximately 2.1mgal of DST waste achieving 948kgals (45%) waste volume reduction.
FY09	09-02	AP-101/AP-105	AP-104/ AP-101	
FY10	10-01	AW-106	AP-104	Detailed planning for FY10 and out-year campaigns subject to retrieval activities and Tank Operations Contractor commitments and requirements. Forecast FY10-11 campaigns are based on preliminary planning associated with blending AZ-102.
FY10	10-02	AP-107	AP-104/ AP-107	
FY11	11-01	AZ-102	AP-107	
FY11	11-02	AY-101	AP-017	

Milestone M-90-00, Complete Acquisition of New Facilities, Modifications of Existing facilities, and/or Modifications of Planned Facilities, as Necessary for Storage of Hanford Site Immobilized High Level Waste (IHLW), Immobilized Low Activity Waste (ILAW), and Disposal of ILAW, and M-20-00, Submit Part B Permit Applications

I. Near-Term Deliverables:

- **M-90-10, Ready to Accept Placement of ILAW Waste in ILAW Disposal Facility**

Due: 8/31/08

Status: Complete.

- **M-90-11, Complete Canister Storage Facility Construction**

Due: 8/31/10

Status: To Be Missed. To be renegotiated to align with WTP schedule.

II. Significant Accomplishments:

- None to report.

III. Significant Planned Actions in the Next Six Months:

- None to report.

IV. Issues

- None to report.

Milestone M-62-00, Complete Pretreatment Processing and Vitrification of Hanford High-Level (HLW) and Low-Activity (LAW) Tank Wastes

I. Near-Term Deliverables:

- **M-62-00, Complete Pretreatment Processing and Vitrification of Hanford High-Level (HLW) and Low-Activity (LAW) Tank Wastes**
Due: 12/31/2028
Status: To Be Missed.
- **M-62-00A, Complete WTP Pretreatment Processing and Vitrification of Hanford HLW and LAW Tank Wastes**
Due: 02/28/2018
Status: To Be Missed.
- **M-62-01R, Submit Semi-Annual Project Compliance Report**
Due: 01/31/2009
Status: Complete.
- **M-62-01S, Submit Semi-Annual Project Compliance Report**
Due: 07/31/2009
Status: On Schedule.
- **M-62-07B, Complete Assembly of Low Activity Waste Vitrification Facility Melter #1 So That It Is Ready for Transport and Installation in the LAW Vitrification Building (BNI Baseline Schedule Activity 4DL321A200 as Part of DOE Contract No. DEAC27-01RV14136), and Complete Schedule Activity ID 4DH46102A2 – Move #1 Melter into the High Level Waste Vitrification Facility**
Due: 12/31/2007
Status: Missed.
- **M-62-08, Submittal of Hanford Tank Waste Supplement Treatment Technologies Report, Draft Hanford Tank Waste Treatment Baseline and Draft Negotiations Agreement in Principle**
Due: 06/30/2006
Status: Missed.
- **M-62-09, Start Cold Commissioning – Waste Treatment Plant**
Due: 02/28/2009
Status: To Be Missed (based on current DOE Baseline planning).

- **M-62-10, Complete Hot Commissioning – Waste Treatment Plant**

Due: 01/31/2011

Status: To Be Missed (based on current DOE Baseline planning).

- **M-62-11, Submit a Final Hanford Tank Waste Treatment Baseline**

Due: 06/30/2007

Status: Missed.

II. Significant Accomplishments:

- None to report.

III. Significant Planned Actions in the Next Six Months:

- None to report.

IV. Issues:

- None.

Hanford Waste Treatment and Immobilization Plant (WTP) Project

There are about 3,015 personnel working on the WTP Project, with about 1,375 people working at the WTP construction site (all facilities): 735 manual, 390 non-manual, and 250 subcontractor personnel. Overall project percent complete through May 2009 is 48%, design and engineering is 75% complete, and construction is 44% complete.

The overall WTP Project cost and schedule performance was positive for May, and the cost and schedule performance continues to be positive for engineering; however, construction performance in May was negative for the first time in several months. Vessel and equipment design and procurement is an area that continues to be a concern. The following areas are under evaluation for opportunities to reduce design complexities.

Material at Risk (MAR)

The Material at Risk (MAR) update for the WTP is being implemented by the contractor by submitting a Preliminary Safety Documented Safety Analysis (PDSA) Addendum initially for the Pretreatment (PT) Facility followed by the High Level Waste Facility. Final approval of an addendum to the PDSA is forecasted to be in early July. On May 19th and 20th, members of the EM Technical Authority Board, including ORP's Site Technical Authority (STA), conducted a Technical Authority Review (TAR) of the bases and concept of the PDSA Addendum for PT. Preliminary results indicate a sound technical argument for the MAR update exists to support reclassifying Safety Class (SC) systems, structures and components (SSC) to safety significant (SS) SSC. The TAR will provide recommendations for ORP and WTP contractor to consider strengthening the documentation of the technical bases including the contractor's Safety Input Review Committee (SIRC) process and ORP process for review and approval of authorization basis documents. The TAR report is expected to be issued in July.

Hydrogen in Piping and Ancillary Vessels (HPAV)

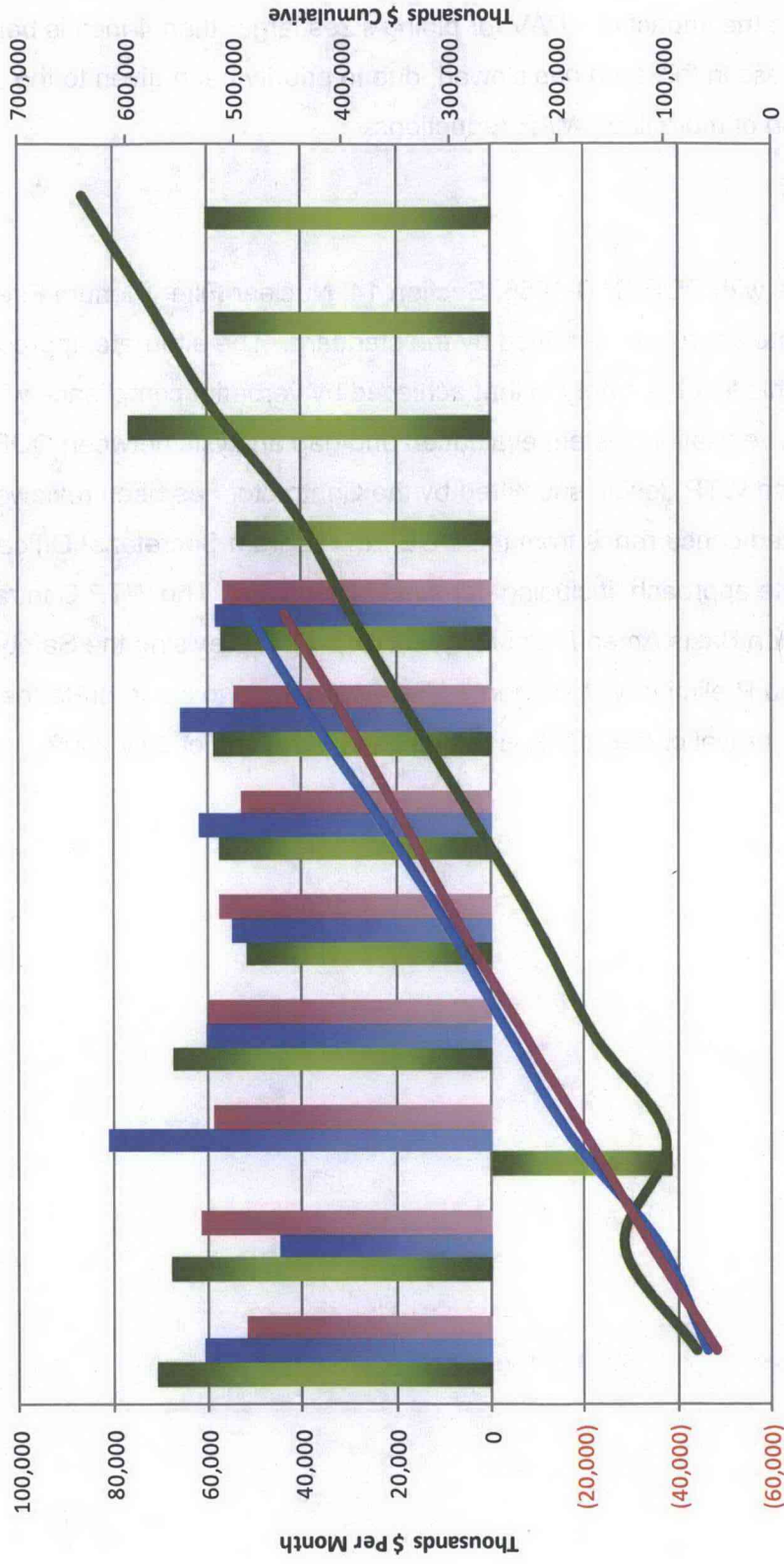
Based on recommendations by the HPAV team chartered in February 2009, ORP and BNI have evaluated team recommendations that could result in removing unnecessary complexity in the control strategy while still maintaining safety commensurate to the risk. Much progress has been made in understanding the new information gained from recent testing supporting the HPAV effort, including the conclusion that strains greater than yield are acceptable, as provided by ASME Code guidance, for events (loads) that are demonstrated to have sufficiently

low frequency of occurrence. The DNFSB staff was briefed on April 15-16, 2009. Since then additional testing to evaluate the impact of HPAV for piping sizes larger than 4-inch is being performed. However, progress in this area has slowed, due to priority been given to the approval and implementation of more likely MAR reductions.

DOE-STD-1066

ORP is pursuing compliance with DOE-STD-1066, Section 14, Nuclear Filter Plenum Fire Protection, using the alternate approach permitted by the standard. The alternate approach will demonstrate a comparable level of safety to that achieved by verbatim compliance with the Section 14 requirements. A ventilation system evaluation and gap analysis between DOE-STD-1066-97, Section 14 and WTP design submitted by the Contractor has been reviewed by ORP, and ORP has requested concurrence from the DOE EM Program Secretarial Officer (PSO) accepting the alternate approach, including gaps, as acceptable. The WTP Contractor submitted a draft Authorization Basis Amendment Request (ABAR) for revising the Safety Requirements Document and Preliminary Documented Safety Analysis to incorporate the alternate approach. ORP approval of the ABAR is forecasted by the end of July 2009.

WTP – Fiscal Year To-Date Performance



Pretreatment (PT) for June 2009 (May 2009 EVM Data)

The PT Facility will separate radioactive tank waste into high-level waste (HLW) and low-activity waste (LAW) fractions and transfer each waste type to the respective vitrification facility for immobilization. Overall facility percent complete is 44%, engineering/design is 74% complete, and construction is 29% complete.

Construction installations for the month included: 213yd³ of concrete, 100 tons of rebar, 27,000 lbs of embeds and over 100 tons of tier -3 structural steel.

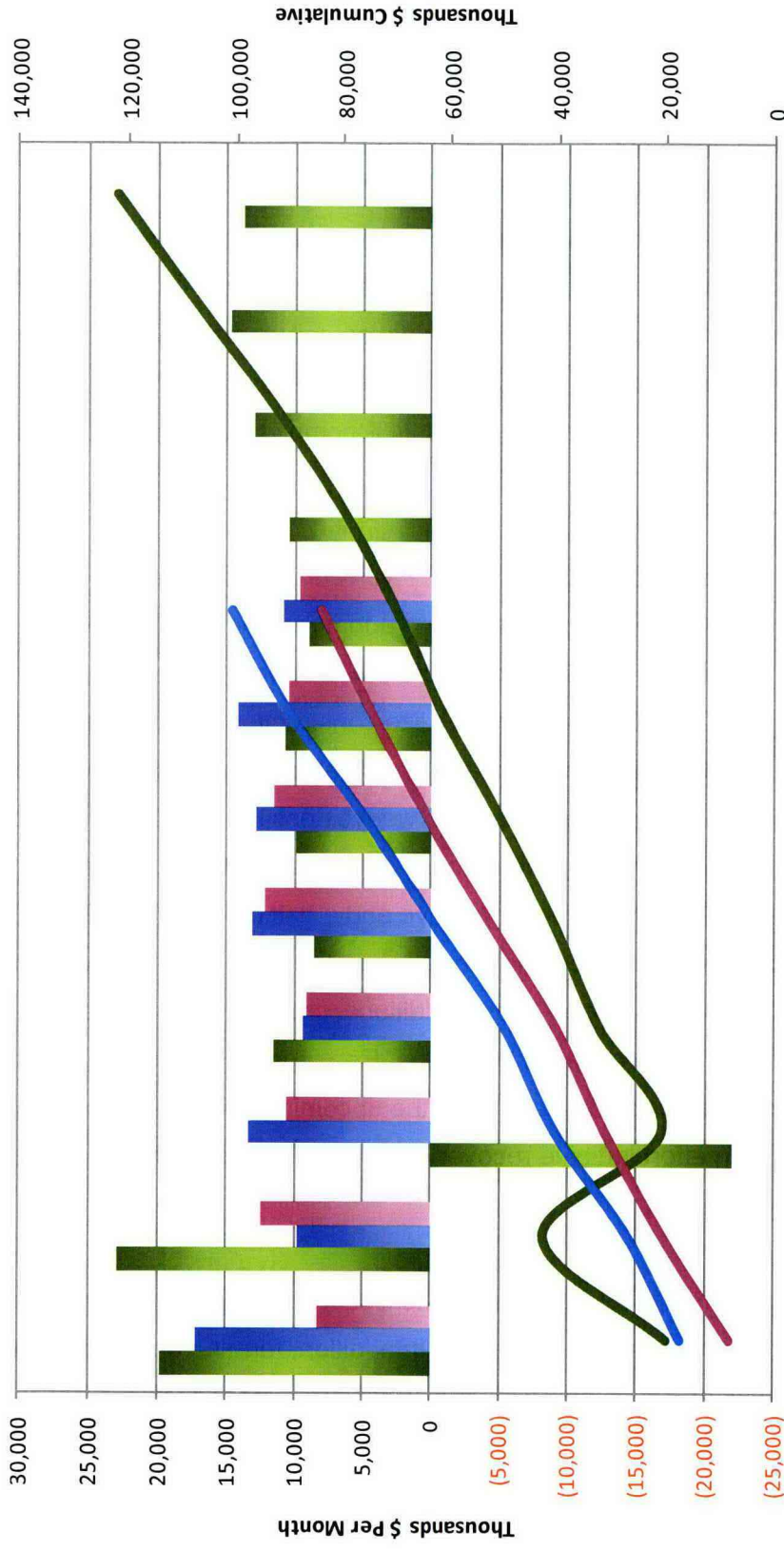
Construction forces at the +56 elevation placed concrete for one wall 4-39. They are continuing to install tier-3 structural steel. Ongoing fabrication and installation of temporary platforms is continuing for planning area 4E. At the +28 crews continue to apply surface coatings to walls and floors. Crews at the 0' elevation started applying intumescent fireproofing in the NW corner and continue; installing liners, applying surface coatings to the hot cell walls, fabricating rebar curtains; building scaffolding; welding piping in black cells. Due to the tower and de-mag cranes down for mechanical issues, concrete work is behind schedule. BNI is working on a recovery schedule to catch up on the concrete pours.

Over 375 piping isometric drawings were issued this month. A committed calculation for incorporating Pulse Jet Mixing (PJM) effects on vessel analysis has been issued and will be included in vessel data sheets. The DNFSB was briefed on MAR. DNFSB comments are currently being resolved and ABAR acceptance is pending comment resolution.

A number of technical issues are being worked on by BNI in conjunction with DOE. Vessels have been categorized in four groups to resolve EFRT issue of vessel mixing, M3. Of which, the first two groups of vessels have been accepted by DOE confirming the mixing capability. Closure of the third group is undergoing comment resolution. Details of the second phase of vessel mixing testing and CFD analyses have been developed to resolve EFRT issue for the fourth group of vessels. Simulant testing has been delayed to start in July due to the start-up tests and equipment repairs taking longer. Additionally, detailed preparation to perform a number of tests to determine parameters of mixing for various particle sizes at the Washington State University is ongoing. EFRT review members have noted that some of the non-Newtonian vessels, accepted through large-scale testing earlier, could potentially have Newtonian fluid, which needs additional evaluations for the validation of mixing. Resolution of BNI chief engineer comments for the cesium nitric acid recovery process (CNP) is on-going. Key areas of focus include justification of a 40 year life for evaporator vessel internals, reduction of the evaporator heel volume, and the CNP rectifier design. Development of a risk mitigation

plan is currently underway for solids deposit due to post filtration precipitation in the cesium ion exchange process (CXP) system. The path forward includes identification of precipitation mechanisms, quantification of solids formation, and potential equipment and process changes to minimize the effects on CXP system operation.

Pretreatment Facility - Fiscal Year To-Date Performance



High-Level Waste (HLW) Facility Status for June 2009 (May 2009 EVM Data)

The HLW Facility will receive the high-level waste fraction from the Pretreatment (PT) Facility. The received concentrate is sampled and analyzed to determine the optimum blend of glass formers to create a slurry that will produce a vitrified waste form that is both durable and compliant with all disposal requirements. The blended slurry is converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters for cooling. The canisters are sealed and transported to a decontamination cell where any surface contamination is removed prior to release for physical transfer for interim or final storage. HLW engineering/design is 79% complete and construction is 24% complete. The overall facility completion is 45% complete.

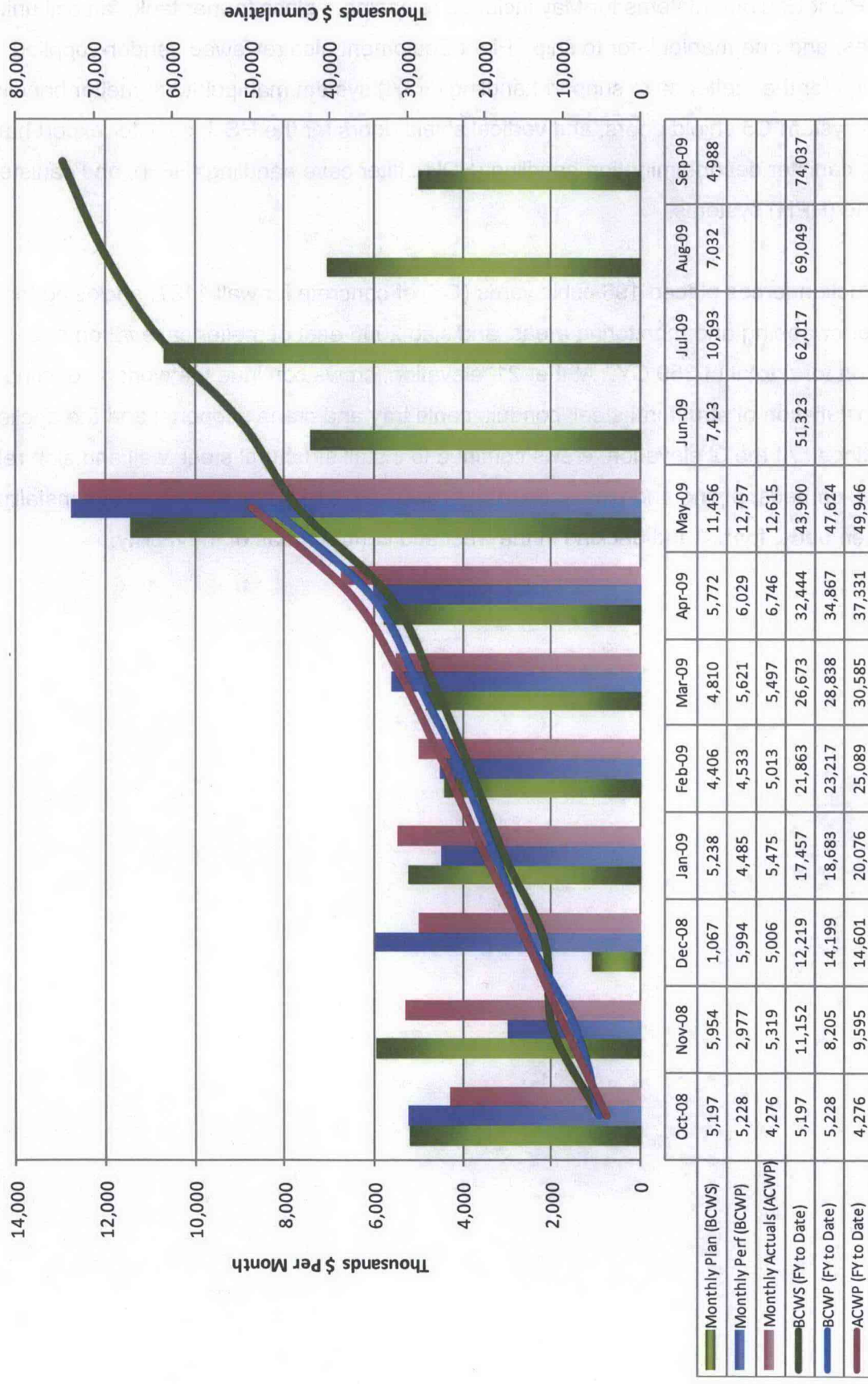
Implementation of the Workable Backlog Program (WBP) plan continues. The WBP's strategy is to establish a rolling six-month backlog of materials and approved construction work packages to provide construction flexibility and allow more efficient work processes. Having a 6-month backlog (equivalent to 120,000 hours) will stabilize construction resource loading and reduce the impacts caused by late design changes and unavailable materials. In December 2008, the Concrete Backlog accounted for less than two weeks (less than 10,000 man-hours) of field work. With the increased Project Management focus on improving these levels, the backlog has grown from over one month in January to five and a half months (111,000 hours) in June 2009. Civil construction work lagged behind the baseline schedule until the workable backlog was established. Construction began to add additional craft in June in order to accelerate work efforts and recover the baseline schedule. Re-planning efforts are underway to optimize the sequencing and labor resource loading for the upcoming concrete placements. Preliminary results of the re-plan effort indicate recovery to the baseline schedule by the first or second quarter of calendar year 2010.

A major engineering accomplishment in June included the issuance of the remaining rebar drawings for all the walls between elevations +37' +58'. In addition, forming drawings for the walls above the filter cave between elevations +37' and +58' were released for internal review. Other engineering activities include the issuance of platform, hazard topography, piping isometrics, joggle, equipment location, and structural steel drawings. The model reviews for the Non-Radioactive Liquid Waste Disposal (NLD) system, the Process Vessel Vent Exhaust (PVV) system, and the Wet Process Cell (planning area 7A) were also completed.

Major Plant Equipment items for May included releasing a glass former tank, fan coil units, wall modules, and one manipulator to ship. Plant Equipment also reviewed vendor-supplied drawings for the melter cave support handling (HSH) system manipulators, melter handling (HMH) system C5 shield doors, and vertical shield doors for the HSH, canister export handling (HEH), canister decontamination handling (HDH), filter cave handling (HFH), and canister pour handling (HPH) systems.

Construction forces placed 196 cubic yards (CY) of concrete for wall 1137, enclosing the canister swabbing and monitoring areas, and slab 2006 east of melter cave #2 on the +14' elevation for a total of 359 CY. At the -21' elevation, crews continue the work on ducting and rails; installation of structural steel, conduit, cable tray and crane supports; and the application of coatings. At the 0' elevation, crews continue to install structural steel, wall and slab rebar, grillage, embeds, piping and pipe supports. Crews at the +14' elevation continue installing rebar, embeds, forms, and decking in the west and central areas of the facility.

High-Level Waste Facility - Fiscal Year To-Date Performance



Low-Activity Waste (LAW) Facility Status for June 2009 (May 2009 EVM Data)

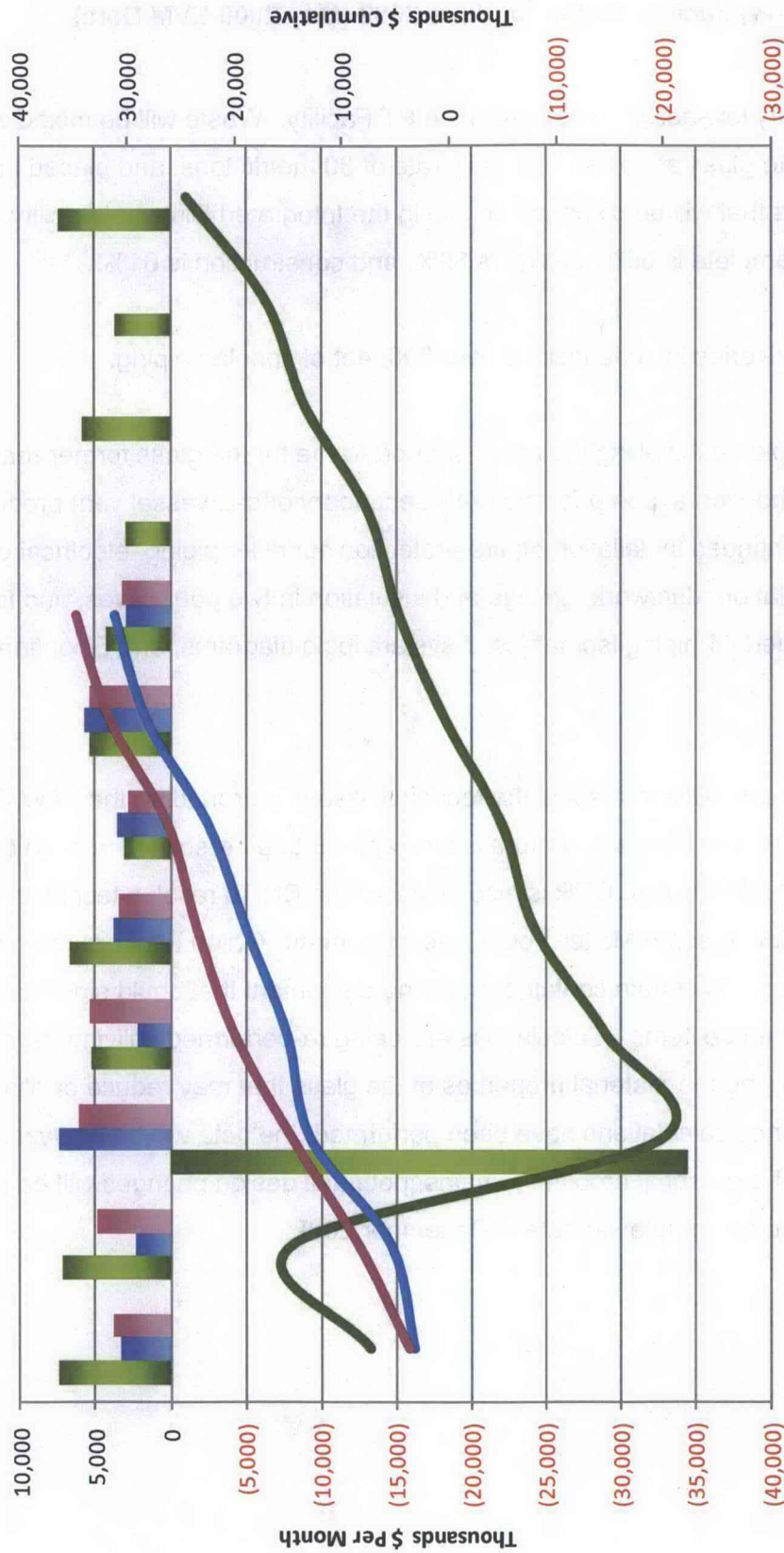
The LAW Facility will vitrify low-activity waste from the PT Facility. Waste will be mixed with glass formers, vitrified into glass at an average daily rate of 30 metric tons, and placed in stainless-steel containers that will be disposed on site in the Integrated Disposal Facility. Overall facility percent complete is 66%, design is 89%, and construction is 61%.

Significant equipment deliveries in June include over 500 feet of spooled piping.

Construction forces completed installing the mixer support frame for the glass former reagent system and aligning the horizontal pump for the LAW secondary offgas/vessel vent process system. Construction continued installation of; fire protection sprinkler piping, electrical conduit, Gypsum wallboard installation, ductwork, grillage and insulation in two pour caves, and four cranes. Engineering issued 41 piping isometrics, 7 system logic diagrams, and 5 confirmed system calculations.

Currently ORP is working with BNI to resolve the technical issues surrounding the LAW Offgas System. The chemical hazards and temperature issues appear to be resolved, with an official report from BNI expected later in July. OPR is also working with BNI to resolve technical issues for excessive heat retention in some Melter Pour Cave equipment. A high temperature condition has been calculated to occur in certain container handling equipment that could significantly reduce the yield stress of these items. Calculations are being re-performed utilizing new experimental data concerning the material properties of the glass that may reduce or eliminate this potential problem. Once calculations have been performed, the data will be analyzed for equipment stresses and if a potential problem remains, potential design changes will be made to rectify the issue. Expected completion date is December 2009.

Low-Activity Waste Facility - Fiscal Year To-Date Performance



Analytical Laboratory (LAB) Status for June 2009 (May 2009 EVM Data)

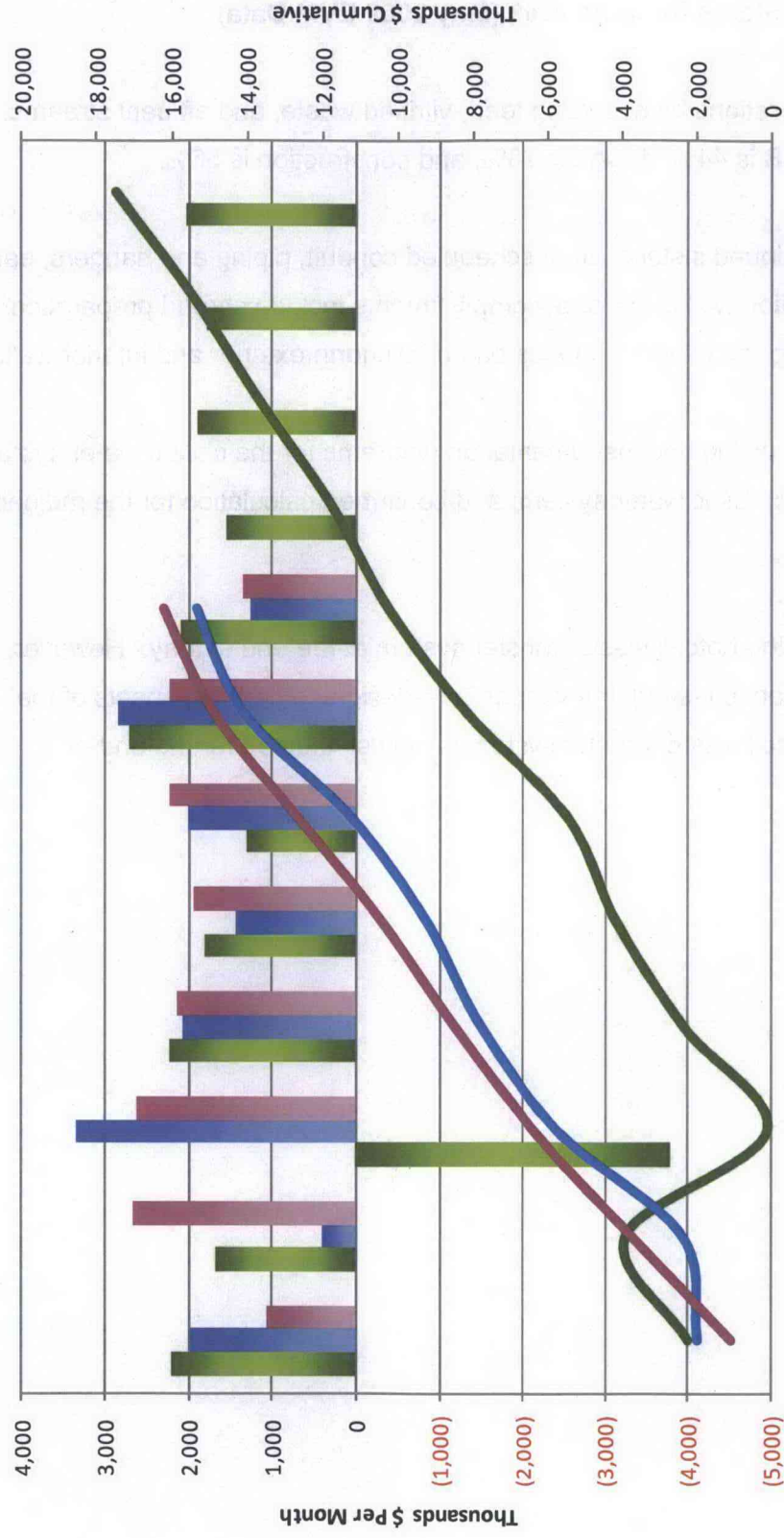
The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. Overall facility complete for LAB is 44%, design is 78%, and construction is 56%.

During June, construction continued installation of scheduled conduit, piping and hangers, early electrical equipment, and partition walls. Major accomplishments include shroud preparation above the hotcell and preparing the interior surfaces on hotcell north exterior and interior walls.

Engineering issued: confirmed piping and instrumentation diagrams for the chilled water system; confirmed calculation for the domestic water system; and confirmed calculation for the radioactive liquid waste disposal system.

BNI was scheduled to receive the hotcell waste transfer system at the end of May. However, due to issues during factory acceptance testing, the vendor is re-designing certain aspects of the system and delivery of the hotcell waste transfer system is now scheduled for the end of September.

Analytical Laboratory - Fiscal Year To-Date Performance



	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09
Monthly Plan (BCWS)	2,209	1,668	(3,784)	2,225	1,802	1,311	2,707	2,093	1,540	1,898	1,780	2,028
Monthly Perf (BCWP)	1,982	412	3,338	2,068	1,440	2,007	2,833	1,257				
Monthly Actuals (ACWP)	1,059	2,668	2,620	2,129	1,932	2,230	2,231	1,337				
BCWS (FY to Date)	2,209	3,878	94	2,319	4,120	5,431	8,138	10,231	11,771	13,669	15,449	17,477
BCWP (FY to Date)	1,982	2,394	5,732	7,800	9,240	11,248	14,081	15,338				
ACWP (FY to Date)	1,059	3,728	6,348	8,477	10,409	12,639	14,869	16,206				

Balance of Facilities (BOF) Status for June 2009 (May 2009 EVM Data)

BOF provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. Overall facility percent complete for BOF is 51%, design/engineering is 74%, and construction is 62%.

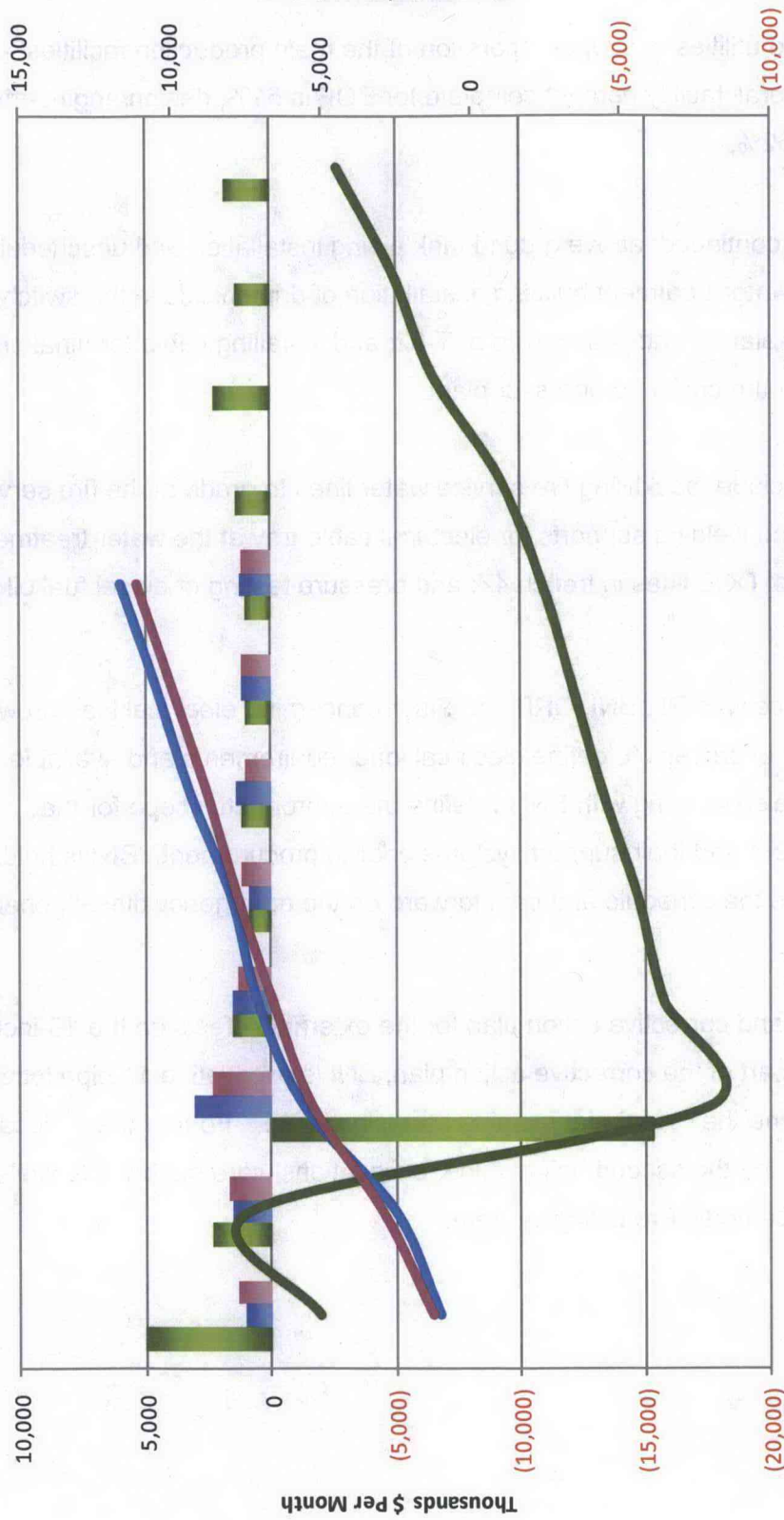
During June, construction continued: above ground tank piping installation and unscheduled conduit installation at the water treatment building; installation of drip shields in the switchgear building; installation of fire alarms and pulling wire at T-52; and installing cable terminations for the chilled water system at the chiller compressor plant.

Major accomplishments include: backfilling fire service water lines to grade at the fire service water building; installing and welding supports for electrical cable tray at the water treatment building; pressure testing of DOE lines in trench 4Z; and pressure testing of diesel fuel oil lines in trench 8A.

Discussions are taking place with RL, BNI, ORP and Fluor concerning electrical load growth through the Interface Control process to define electrical load requirements and available power for the WTP site. ORP is also working with BNI to define the appropriate scope for the emergency diesel generators and their support systems prior to procurement. BNI is holding bi-weekly meetings to discuss the schedule and path forward on the emergency diesel generator procurement.

BNI sent ORP their report and corrective action plan for the external defects on the 18-inch Plant Service Air line. As part of the corrective action plan, BNI is excavating 11 pipe locations on the WTP site to determine the extent of the piping corrosion issue. Four of the 11 locations have been excavated. During the second half of June, excavations were put on hold while BNI attempted to balance the Cathodic Protection System.

Balance of Facilities - Fiscal Year To-Date Performance



	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09
Monthly Plan (BCWS)	5,028	2,328	(15,375)	1,546	870	1,176	992	1,026	1,408	2,269	1,349	1,835
Monthly Perf (BCWP)	1,037	1,512	3,022	1,535	866	1,362	1,121	1,195				
Monthly Actuals (ACWP)	1,264	1,697	2,331	1,318	1,167	1,017	1,162	1,188				
BCWS (FY to Date)	5,028	7,355	(8,020)	(6,474)	(5,604)	(4,428)	(3,435)	(2,409)	(1,001)	1,267	2,616	4,451
BCWP (FY to Date)	1,037	2,549	5,571	7,105	7,971	9,333	10,455	11,649				
ACWP (FY to Date)	1,264	2,961	5,292	6,610	7,777	8,794	9,956	11,145				

Waste Treatment Plant Project - Percent Complete Status Through May 2009								
(Dollars - Millions)	Overall Facility Percent Complete Allocated Dollars			Design/Engineering Unallocated Dollars			Construction Unallocated Dollars	
	Budget at Completion (BAC)	Budgeted Cost of Work Performed (BCWP)	% Complete	Budget at Completion (BAC)	Budgeted Cost of Work Performed (BCWP)	% Complete	Budget at Completion (BAC)	Budgeted Cost of Work Performed (BCWP)
Facilities								
Low-Activity Waste	1,627.9	1,074.7	66%	198.2	176.8	89%	247.3	151.7
Analytical Lab	622.6	272.8	44%	46.5	36.5	78%	70.8	39.6
Balance of Facilities	964.5	493.9	51%	68.0	50.6	74%	185.4	115.1
High-Level Waste	2,584.7	1,161.0	45%	305.8	241.9	79%	432.3	103.8
Pretreatment	4,117.9	1,807.0	44%	568.1	419.0	74%	709.5	205.3
Plant Wide/Gen Services	incl. above	incl. above	incl. above	948.4	674.1	71%	1,606.2	816.9
Undistributed Budget	7.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	9,925.5	4,809.4	48%	2,135.0	1,598.9	75%	3,251.5	1,432.4
								44%

Source: WTP Contract Performance Report

Note: Beginning with the February 2009 status report, Design/Engineering dollars now include, in addition to Engineering dollars, dollars for Research and Testing (R&T), Process Engineering, and Environmental & Nuclear Safety (E&NS).

WTP Project - KEY COMMODITY QUANTITY PROGRESS				
Commodity	Unit of Measure	Current Forecast at Completion Quantity	Installed through May 2009	Percent Complete
Concrete	1000 cy	262.30	186.57	71.1%
Structural Steel	1 ton	39,427	13,699	34.7%
Piping (in buildings)	1000 lf	920.86	153.29	16.6%
Piping (underground)	1000 lf	116.01	95.40	82.2%
HVAC Duct	1000 lbs	4,290.17	961.89	22.4%
Cable Tray	1000 lf	98.43	19.91	20.2%
Conduit (in buildings)	1000 lf	934.70	102.78	11.0%
Conduit (underground)	1000 lf	192.91	176.16	91.3%
Cable and Wire	1000 lf	4,933.72	248.17	5.0%